What is claimed is:

1. A power supply circuit for driving liquid crystal display adapted to generate two or more drive voltages having intermediate voltage levels with respect to a peak voltage level, the intermediate voltage levels being classified into a first group of levels and a second group of levels, said power supply circuit for driving liquid crystal display comprising:

an amplifier having a voltage follower configuration;

one or more capacitors connected to the amplifier, said capacitors and said amplifier being provided for each level of the first group of levels to generate a level in cooperation with each other for the first group of levels; and

switching means controlled at a predetermined timing to select a predetermined one of said capacitors to generate a level with a discharge voltage of the capacitor and the peak voltage level for the second group of levels.

2. A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein all levels are generated with n number or less of said amplifier and n number or less of the capacitors when the number of the levels is equal to 2n for the intermediate voltage levels, wherein n is an integer.

3. A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein all levels are generated with n number or less of said amplifier and 3n number or less of

said capacitors when the number of the levels is equal to 4n for the intermediate voltage levels, wherein n is an integer.

4. A power supply circuit for driving liquid crystal display adapted to generate four drive voltages having intermediate voltage levels with respect to a peak voltage level, said power supply circuit for driving liquid crystal display comprising two amplifiers each having a voltage follower configuration, two capacitors, and two switching means, the four intermediate voltage levels being classified into a first group of levels and a second group of levels, wherein:

said amplifiers and said capacitors generate a level for the two levels of the first group of levels, and

said switching means controlled at a predetermined timing selects a predetermined one of said capacitors to generate a level with a discharge voltage of the capacitor and the peak voltage level for the two levels of the second group of levels.

5. A power supply circuit for driving liquid crystal display as claimed in Claim 4, wherein said two capacitors are connected with each other via a junction, one level forming the first group of levels and another level forming the second group of levels are successively generated at the junction.

6. A power supply circuit for driving liquid crystal display adapted to generate four drive voltages having intermediate voltage levels with respect to a peak voltage level, said power supply circuit comprising one amplifier having a voltage

follower configuration, three capacitors, and three or four switching means, the four intermediate voltage levels being classified into a first group of levels and a second group of levels, wherein:

said amplifiers and said capacitors generate a level for the one level of the first group of levels, and

said switching means controlled at a predetermined timing selects a predetermined one of said capacitors to generate a level with a discharge voltage of the capacitor and the peak voltage level for the remaining three levels of the second group of levels.

7. A power supply circuit for driving liquid crystal display as claimed in Claim 1, further comprising a segment electrode and an additional capacitor which is used to stabilize the levels forming the second group of levels to a certain level available for being supplied to the segment electrode.

8. A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein the capacitor or capacitors used to generate have a function to stabilize the level, for the levels for the second group of levels.

9. A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein the timing is determined so as to be in synchronism with a display signal for a liquid crystal display and selection of said capacitor(s) is performed

by said switching means at a timing that does not affect the liquid crystal display.

10. A power supply circuit for driving liquid crystal display as claimed in Claim 9, wherein the display signal comprises either one of a frame signal, a data output signal, and a signal generated on the basis of the data output signal.

11. A power supply circuit for driving liquid crystal display as claimed in Claim 10, further comprising a common electrode and a segment electrode, wherein the capacitor used to generate a level to be connected to the common electrode is controlled by a signal which is in synchronism with the frame signal and wherein the capacitor used to generate a level to be connected to the segment electrode is controlled by a signal which is in synchronism with the data output signal.

12. A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein the timing is connected to said capacitor(s) to generate a level only during a certain period of switching the outputs and the timing is connected to a predetermined level to charge the capacitor(s) during the remaining period of time.

13. A power supply circuit for driving liquid crystal display as claimed in Claim 1, wherein the first group of levels is configured with the levels on a low potential side and wherein

said amplifier(s) and said capacitor(s) have a low withstanding voltage.